

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In RE: Whittaker et al.

Serial No.: 10/692,442

Group No.: 3635

Filing Date: October 23, 2003

Examiner: Gilbert, William V.

For: **APPARATUS FOR ISOLATING AND LEVELING A MACHINE  
FOUNDATION**

**APPEAL BRIEF**

MS Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal Brief under 37 C.F.R. §41.37. A Notice of Appeal was filed in this case on August 4, 2009 appealing the final rejection dated March 30, 2009. The fee for submitting this brief pursuant to 37 C.F.R. § 41.20(b)(2) is \$270.00 and is transmitted herewith. The Commissioner is hereby authorized to charge any additional fees that may be required for this appeal to Deposit Account No. 25-0115.

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**REAL PARTY IN INTEREST**

The real party in interest of the present appeal is Unisorb, Inc., the assignee, as evidenced by the assignment set forth at Reel 014664, Frame 0473.

**RELATED APPEALS AND INTERFERENCES**

There are no appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**STATUS OF CLAIMS**

Claims 1-3, 7-9 and 17-24 stand finally rejected by the Examiner, as noted in the Office Action dated March 30, 2009. Claims 4-6 and 10-16 are withdrawn from consideration. The rejection of claims 1-3, 7-9 and 17-24 is appealed.

**STATUS OF AMENDMENTS**

No claim amendments were filed subsequent to the Examiner's final rejection dated March 30, 2009.

### SUMMARY OF CLAIMED SUBJECT MATTER

The purpose of the invention is set forth in the section of the specification entitled *Summary of the Invention*:

The present invention provides an apparatus for isolating a machine foundation from a substructure of a building while also providing proper adjustments to level the machine foundation. The apparatus of the present invention provides an enclosure connected to the machine foundation wherein the enclosure has an upper portion and a lower portion that are telescopically adjustable to one another to allow for various sizes of the enclosure and provide a leveling adjustment of the machine foundation. (Page 3, lines 16-21).

The discussion of the claims will be informed by Figures 1 and 2 of the application, as reproduced below:

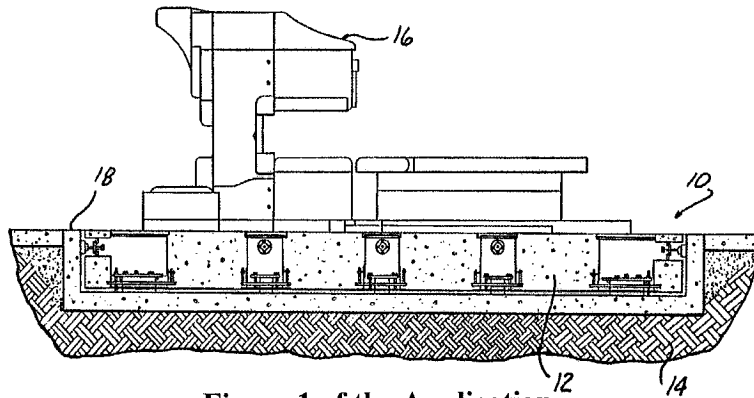


Figure 1 of the Application

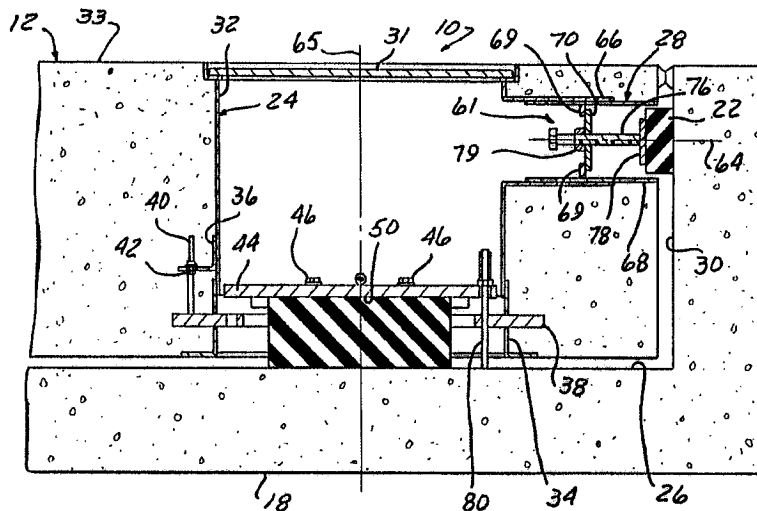


Figure 2 of the Application

Independent claim 1 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14 (FIG. 1; page 4, lines 14-16). The apparatus 10 includes a rigid enclosure 24 that is connectable to the machine foundation 12 (page 5, lines 16-18). The enclosure 24 has a substantially hollow upper portion 32 and a substantially hollow lower portion 34 (FIG. 2; page 6, lines 8-10). The upper portion 32 of the enclosure 24 is telescopically adjustably connected to the lower portion 34 of the enclosure 24 to provide for various sizes of the enclosure 24 (page 6, lines 10-12; page 7, lines 3-6). The apparatus 10 further includes means for rigidly connecting the upper portion 32 of the enclosure 24 to the lower portion 34 of the enclosure 24, for fixing the position of the upper portion 32 of the enclosure 24 with respect to the lower portion 34 of the enclosure 24. The means for rigidly connecting may include rods 40 that are integrally connected to an anchor ring 38 that is connected to the lower portion 34 of the enclosure, as well as flanges 36 that are connected to the upper portion 32 of the enclosure 24 and are adjustably connected to the rods 40 by slip joints 42 (page 6, line 12 - page 7, line 6). The apparatus 10 also includes means for providing a leveling adjustment of the machine foundation 12, such as a bearing member 44 that is adjustably connected to the anchor ring 38 of the lower portion 34 of the enclosure 24 by a plurality of fasteners 46 (page 7, lines 7-14).

Dependent claim 2 is dependent upon claim 1. Claim 2 is drawn to an apparatus 10 for isolating a machine foundation 12 with respect to a substructure 14, wherein the means for rigidly connecting includes an upper portion 32 of the enclosure 24 that has at least one flange 36 having an aperture extending therethrough, a lower portion 34 of the enclosure 24 having an anchor ring 38 with at least one rod 40 connected thereto and extending through the aperture in the flange 36 of the upper portion 32, and a slip joint 42 that is connected to the flange of the upper portion 32 for releasably connecting the rod 40 to the flange 36 (page 6, line 12 - page 7, line 6).



Dependent claim 3 is dependent upon independent claim 1. Claim 3 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14, wherein the means for providing a leveling adjustment comprises a lower portion 34 of the enclosure 24 having an anchor ring 38 that extends into the interior of the enclosure 24, a bearing member 44, and a support member 20. The bearing member 44 is disposed within the enclosure 24 and is adjustably connected to the anchor ring 38 to provide a leveling adjustment of the machine foundation (page 6, lines 17-20; page 7, lines 7-14). The support member 20 is in contact with the bearing member 44 and is engageable with the substructure 14 to isolate the machine foundation 12 from the substructure 14 (page 7, line 7 - page 8, line 6).

Independent claim 9 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14 (FIG. 1; page 4, lines 14-16). The apparatus 10 includes a rigid enclosure 24 that is connectable to the machine foundation 12 (page 5, lines 16-18). The enclosure 24 has a substantially hollow upper portion 32 and a substantially hollow lower portion 34 that are telescopically connected to one another to provide for various sizes of the enclosure 24 (FIG. 2; page 6, lines 8-10). The lower portion 34 of the enclosure 24 has an anchor ring 38 that extends into the interior of the enclosure 24 (page 6, lines 17-20). A bearing member 44 is disposed within the enclosure 24 above the anchor ring 38 (FIG. 2, page 7, lines 7-8). A plurality of fasteners 46 connect the bearing member 44 to the anchor ring 38 in a vertically spaced relationship for vertical adjustment of the anchor ring 38 with respect to the bearing member 44 to provide a leveling adjustment of the machine foundation 12 (page 7, lines 7-14). A support member 20 is in contact with the bearing member 44 and engageable with the substructure 14 for isolating the machine foundation 12 from the substructure 14 (page 7, line 20 - page 8, line 6).

Dependent claim 21 is dependent upon claim 1. Claim 21 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14, wherein the upper

portion 32 of the enclosure 24 is substantially tubular and has open ends, and the lower portion 34 of the enclosure 24 is substantially tubular and has open ends (FIG. 2; page 6, lines 8-12).

Dependent claim 22 is dependent upon claim 1. Claim 22 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14, wherein the upper portion 32 of the enclosure 24 is fabricated as an integral body, and the lower portion 34 of the enclosure 24 is fabricated as an integral body. (FIG. 2; page 6, lines 8-12).

Dependent claim 23 is dependent upon claim 1. Claim 23 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14, wherein the enclosure 24 is connectable to the machine foundation 12 to define a first open end of the rigid enclosure 24 at a top surface of the machine foundation 12 and a second open end of the rigid enclosure 24 at a bottom surface of the machine foundation 12 (FIG. 2; page 5, line 16 - page 6, line 12).

Dependent claim 24 is dependent upon claim 9. Claim 24 is drawn to an apparatus 10 for isolating and leveling a machine foundation 12 with respect to a substructure 14, wherein the anchor ring 38 has an inner perimeter and the fasteners 46 are arrayed around the anchor ring 38 adjacent to its inner perimeter (FIG. 2-8; page 7, lines 10-14; page 8, lines 2-6; page 13, line 5-16).

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The issues presented for consideration in this appeal are as follows:

1. Whether apparatus claims 1-3, 7-9 and 17-24 are unpatentable under 35 U.S.C. §102(b) over United States Patent No. 4,074,474 to Cristy.

# ARGUMENT

## A. APPARATUS CLAIMS 1-3, 7-9 AND 17-24 ARE NOT ANTICIPATED BY CRISTY (U.S. PAT. NO. 4,074,474)

In the Office Action dated March 30, 2009, the Examiner rejects claims 1-3, 7-9 and 17-24 under 35 U.S.C. §102(b) as anticipated by Cristy.

In pertinent part, and with reference to Figure 9 thereof (reproduced below), Cristy discloses the following:

Another embodiment of the invention wherein the pneumatic support means; includes a diaphragm and has a relatively low profile is illustrated in FIG. 9. In this arrangement, the enclosure of the pneumatic support means is toroidal shaped and is provided by a circular plate 230 and a circular diaphragm 232. Gas tight sealing is provided at a periphery of the diaphragm 232 where it is secured between the plate 230 and flanges 234 and 236 of frame members 238 and 240 respectively. A bore 241 is formed in the plate 230 and communicates between this enclosure and a channel 242 to which gas from a source is applied via a conduit, valving means and manifold as described hereinbefore. An intermediate support means 250 is provided and is positioned partly within the frame on the surface of the diaphragm 232. When the enclosure is pressurized as is illustrated in FIG. 9, the intermediate support means 250 is raised and the subfloor 14 is vertically displaced from the surface of upper flange segments 252 and 254 of the frame members 236 and 238 respectively. (Cristy, Col. 6, lines 37-56).

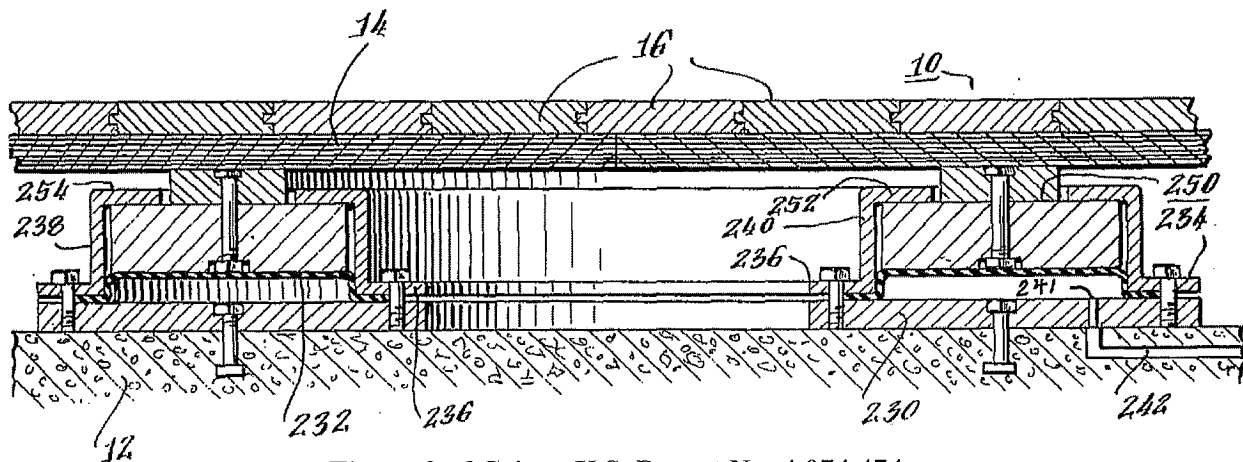


Figure 9 of Cristy, U.S. Patent No. 4,074,474

Claim 1

The rejection of independent claim 1 as anticipated by Cristy is improper. In particular, Cristy fails to teach all of the elements of claim 1.

Claim 1 recites “a rigid enclosure connectable to said machine foundation, and said enclosure having a substantially hollow upper portion telescopically adjustably connected to a substantially hollow lower portion to provide for various sizes of said enclosure”. The Examiner identified the intermediate support means 250 and the frame member 240 of Cristy as the upper portion of the enclosure. The Examiner identified the circular plate 230 and the circular diaphragm 232 as the lower portion of the enclosure.

The upper and lower enclosure portions identified by the Examiner are not “telescopically adjustably connected” to one another. The Examiner asserts that Cristy teaches a telescopic connection of the frame member 240 and the intermediate support means 250. However, both of these elements were identified by the Examiner as parts of the upper portion of the enclosure, and their relative movement does not constitute telescopic connection of the upper and lower portions identified by the Examiner.

The word “telescopic” can be defined as “having or consisting of concentric tubular sections designed to slide into one another” (Exhibit A, “Telescopic”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005). With regard to the connection between the upper and lower portions identified by the Examiner, Cristy clearly shows that the frame member 250 of Cristy is bolted to the circular plate 230 in a facing, non-telescopic manner. Applicant submits that both of the elements identified as an upper portion of the enclosure, namely, the frame member 240 and the intermediate support means 250, would need to be telescopically adjustably connected to the circular plate 230 and the circular diaphragm 232 to properly meet

the claim language. Because the rejection ignores the arrangement of the claim elements, Cristy does not anticipate the enclosure of claim 1.

Claim 1 also recites “means for rigidly connecting said upper portion of said enclosure to said lower portion of said enclosure for fixing the position of said upper portion of said enclosure with respect to said lower portion of said enclosure” and “means for providing a leveling adjustment of said machine foundation.” These features of claim 1 are recited in the manner set forth in 35 U.S.C. §112, sixth paragraph, as a means for performing a specified function without the recital of structure, material, or acts in support thereof. Section 112 requires that such claims be construed to “cover the corresponding structure, material, or acts described in the specification and equivalents thereof.”

Applicant submits that these limitations have not been properly interpreted. While a means plus function limitation can be considered to be found in the prior art if the reference discloses the structure set forth in the application or a substantial equivalent, the Examiner has not applied the prior art to the structures disclosed in the application or explained how the cited art is equivalent to those structures. *See In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994). Rather, the rejection clearly interprets the means-plus-function limitations of claim 1 as reading on any prior art means that performs the function specified in the claim without regard to whether the cited structure is equivalent to the structure disclosed in the specification. As set forth in MPEP §2183, the Examiner’s rationale should be stated on the record. Because the rejection of claim 1 does not identify how the cited art discloses the corresponding structure in the specification or show that the cited structure is an equivalent, the rejection is improper.

With further regard to the “means for rigidly connecting” of claim 1, Applicants’ specification states:

In order to adjust the depth or height of the enclosure 24 to correspond to the depth or height of the machine foundation 12, the

enclosure 24 has an upper portion 32 and a lower portion 34 that are telescopically received within one another. Specifically, the upper portion 32 of the enclosure 24 is telescopically received within the lower portion 34 of the enclosure 24. The upper portion 32 and the lower portion 34 of the enclosure 24 are adjustably connected through the use of three substantially right angle flanges 36 that are connected to and extend outward from the exterior of the upper portion 32 of the enclosure 24. The flanges 36 each have an aperture extending through the outwardly extending portion of the flange 36. The flanges 36 are equally spaced about the outer perimeter of the enclosure 24. The lower portion 34 of the enclosure 24 has an anchor ring 38 integrally connected to the lower portion 34 of the enclosure 24. The anchor ring 38 has an inner perimeter 39 and an outer perimeter 41 relative to the enclosure 24 that both extend at a substantially right angle from the lower portion 34 of the enclosure 24. Three rods 40 are integrally connected to the anchor ring 38 and extend upward toward the flanges 36 of the upper portion 32 of the enclosure 24. The three rods 40 correspond in location and number to the apertures in the flanges 36 of the enclosure 24. The rods 40 extend through the apertures provided in the flanges 36, and three adjustable slip joints 42, connected to each of the flanges 36, receive and engage the rods 40. The adjustable slip joints 42 provide a releasable locking mechanism that releaseably locks the rods 40 within the adjustable slip joints 42 and allows the upper portion 32 and the lower portion 34 of the enclosure 24 to telescopically move relative to one another to provide for the desired height of the enclosure 24. (Page 6, line 8 – Page 7, line 6).

The Examiner identified an unlabeled bolt, which is shown as extending through a flange 236 of frame member 240 and through the circular plate 230 in FIG. 9 of Cristy as the “means for rigidly connecting” that is stated in claim 1. This structure does not constitute the structure in the specification corresponding to the “means for rigidly connecting” or an equivalent thereof. Furthermore, the cited structure does not fix the relative positions of the enclosure portions in connection with their telescopic adjustment, as described in the specification. In particular, Applicants’ specification makes clear that the enclosure portions 32, 34 can be locked in a fixed position to provide a particular size for the enclosure pursuant to the telescopic adjustment. Accordingly, Cristy does not anticipate the “means for rigidly connecting” of claim 1.

With regard to the “means for providing a leveling adjustment” of claim 1, Applicants’ specification states:

To apply the load of the machine 16 and the machine foundation 12 to the support member 20, the apparatus 10 of the present invention provides a load bearing member 44. The load bearing member 44 is a substantially flat, plate-like structure disposed within the enclosure 24. Four threaded fasteners 46 connect the bearing member 44 to the inner perimeter 39 of the anchor ring 38. The threaded fasteners 46 can be adjusted to adjust the distance between the bearing member 44 and the anchor ring 38, thereby adjusting the load applied to the support member 20 and the distance between the machine foundation 12 and a floor 26 of the substructure 14. However, the bearing member 44 can only be lowered to a point in which the upper portion 32 of the enclosure 24 bottoms out or engages the anchor ring 38. (Page 7, lines 7-16).

The Examiner identified the diaphragm 232 of Cristy as the “means for providing a leveling adjustment” that is stated in claim 1. Because the diaphragm 232 does not correspond to and is not the equivalent of the anchor ring 38, bearing member 44, and fasteners 46 disclosed by the Applicants, Cristy does not teach the “means for providing a leveling adjustment” of claim 1.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

### Claim 2

Dependent claim 2 is dependent on claim 1. The rejection of claim 2 is improper for the reasons stated with regard to claim 1, and because Cristy fails to teach the limitations cited in claim 2.

Claim 2 states that the means for rigidly connecting of claim 1 further comprises: “said upper portion of said enclosure having at least one flange having an aperture extending therethrough; said lower portion of said enclosure having an anchor ring with at least one rod connected thereto and extending through said aperture in said flange of said upper portion; and a slip joint connected to said



flange of said upper portion for releasably connecting said rod to said flange.” By further describing the means for rigidly connecting in this manner, this element is not subject to interpretation under 35 U.S.C. § 112, sixth paragraph, for purposes of claim 2.

The Examiner identified an unlabeled bolt, which is shown as extending through a flange 236 of frame member 240 and through the circular plate 230 in FIG. 9 of Cristy as the rod of claim 2. The Examiner identified the flange 236 of the frame member 240 as the flange of the upper portion of the enclosure. The Examiner identified the circular plate 230 as the anchor ring of claim 2.

Applicant notes that claim 2 recites structure for performing the function recited in connection with the “means for rigidly connecting” of claim 1, as evidenced by the preamble of claim 2. The bolt that connects the frame member 240 to the circular plate 230 in Fig. 9 of Cristy does not perform this function. In particular, the Examiner has identified the upper portion of the enclosure as including **both** the intermediate support means 250 and the frame member 240 as the upper portion of the enclosure. Cristy does not describe the bolt in Fig. 9 as being capable of fixing the position of the intermediate support means with respect to the circular plate 230 and the circular diaphragm 232 of Cristy. Rather, the intermediate support means 250 of Cristy is described as being vertically displaced in response to pressurization of the diaphragm 232.

Because the cited structure is not capable of fixing the position of the intermediate support means 250 **and** the frame member 240 with respect to the circular plate 230 **and** the circular diaphragm 232, the cited structure cannot be considered to meet the limitations of the claim. Here, the Examiner has asserted that two structures in combination read upon a single element of the claim. In such a situation, the combined structure, **as a whole**, must meet the limitations applied to the claim element in question. Otherwise, the cited combined structure is not arranged in the manner specified in the claim, and the claim cannot be considered to be anticipated.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

Claims 3 and 7-8

Dependent claim 3 is dependent on claim 1. The rejection of claim 3 and its dependent claims 7-8 is improper for the reasons stated with regard to claim 1, and because Cristy fails to teach the limitations cited in claim 3.

Claim 3 states that the means for providing a leveling adjustment further comprises: “said lower portion of said enclosure having an anchor ring that extends into the interior of said enclosure; a bearing member disposed within said enclosure and adjustably connected to said anchor ring to provide a leveling adjustment of said machine foundation; and a support member in contact with said bearing member and engageable with said substructure for isolating said machine foundation from said substructure.” By further describing the means for providing a leveling adjustment in this manner, this element is not subject to interpretation under 35 U.S.C. § 112, sixth paragraph, for purposes of claim 3 and its dependent claims.

The Examiner identified the circular plate 230 of Cristy as the anchor ring of claim 3. The plain meaning of “ring” contemplates a “band of any material”, and is usually circular (Exhibit B, “Ring”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005). The anchor ring 38 substantially conforms to the plain meaning of “ring”. In particular, Applicants’ specification shows and describes a rectangular anchor ring 38 that is connected to the lower portion 34 of the enclosure 24 and has an inner perimeter 39 and an outer perimeter 41 that serve to define the anchor ring as a band of material (Figs. 2-3; Page 6, lines 17-20).

With the exception of apertures to accommodate bolts and a bore 241 that is in communication with a pressurized air source, the circular plate 230 of Cristy is continuous and solid within the confines of its outer periphery. The circular plate 230 of Cristy is not a “band of any material”, and thus does not constitute a ring.

Claim 3 states that the bearing member is “adjustably connected” to the anchor ring.

Applicants’ specification states:

To apply the load of the machine 16 and the machine foundation 12 to the support member 20, the apparatus 10 of the present invention provides a load bearing member 44. The load bearing member 44 is a substantially flat, plate-like structure disposed within the enclosure 24. Four threaded fasteners 46 **connect** the bearing member 44 to the inner perimeter 39 of the anchor ring 38. The threaded fasteners 46 can be adjusted **to adjust the distance** between the bearing member 44 and the anchor ring 38, thereby adjusting the load applied to the support member 20 and the distance between the machine foundation 12 and a floor 26 of the substructure 14. (Page 7, lines 7-14, emphasis added).

The Examiner identified the intermediate support means 250 of Cristy as the bearing member of claim 3 and identified the circular plate 230 as the anchor ring of claim 3. Cristy clearly teaches that the intermediate support means is positioned partly within the frame member 240 and is positioned on the surface of the diaphragm 232. Cristy does not anticipate an adjustable connection of the intermediate support means 250 and the circular plate 230. Thus, Cristy fails to anticipate the bearing member of claim 3.

Claim 3 states that the support member is “engageable with said substructure.” The Examiner identified the diaphragm 232 of Cristy as the support member of claim 3. FIG. 9 of Cristy clearly shows that the diaphragm 232 is spaced from the substructure by the circular plate 230, which has been identified by the Examiner as a portion of the housing and as an anchor ring. Because the circular plate 230 of Cristy is not in the form of a ring, as explained above, the circular plate 230 prevents the support member from being engageable with the substructure. Thus, the apparatus shown in FIG. 9 of Cristy fails to teach the support member of claim 3.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

Claim 9 and 17-20

The rejection of independent claim 9 and its dependent claims 17-20 as anticipated by Cristy is improper. In particular, Cristy fails to anticipate all of the elements of claim 9.

Claim 9 recites: “a rigid enclosure connectable to said machine foundation, and said enclosure having a substantially hollow upper portion and a substantially hollow lower portion telescopically connected to one another to provide for various sizes of said enclosure.” The Examiner identified the intermediate support means 250 and the frame member 240 of Cristy as the upper portion of the enclosure. The Examiner identified the circular plate 230 and the circular diaphragm 232 as the lower portion of the enclosure.

As explained in connection with the enclosure of claim 1, the upper and lower enclosure portions identified by the Examiner are not “telescopically adjustably connected” to one another because of the direct facing relationship between the frame 240 and the circular plate 230. Because both the frame member 240 and the intermediate support means 250 would need to be telescopically adjustably connected to the circular plate 230 and the circular diaphragm 232 to meet the claim language, Cristy does not anticipate the enclosure of claim 9.

Claim 9 recites: “said lower portion of said enclosure having an anchor ring that extends into the interior of said enclosure.” The Examiner identified the circular plate 230 of Cristy as the anchor ring of claim 9. As explained in connection with the recitation of the anchor ring in claim 3, the circular plate 230 of Cristy is not a ring, and thus, this element is not anticipated by Cristy.

Claim 9 recites “a bearing member disposed within said enclosure above said anchor ring” and “a plurality of fasteners that connect said bearing member to said anchor ring in a vertically spaced relationship for vertical adjustment of said anchor ring with respect to said bearing member to provide a leveling adjustment of said machine foundation.”

The Examiner identified numerous disparate fasteners in Figure 9 of the Cristy reference as the plurality of fasteners of claim 9. (reference character W, Office Action dated March 30, 2009,

page 3). These fasteners are unlabelled bolts, including one bolt that connects two portions of the intermediate support means together, one bolt that connects the circular plate 230 to the foundation 12, and two bolts that connect the frame member 240 to the circular plate 230.

None of the cited fasteners is connected to both the intermediate support ring 250 and the circular plate 230. Accordingly, none of the cited fasteners connect these elements “in a vertically spaced relationship”, none of the cited fasteners is capable of performing the function of providing vertical adjustment, and none of the fasteners is capable to “provide a leveling adjustment of said machine foundation.”

Applicant notes that the Examiner asserts that the fasteners can be loosened or tightened for adjustment. This is not anticipated by Cristy. Applicant notes that loosening the fasteners that secure the frame member 240 to the circular plate 230 would depressurize the diaphragm 232, as this connection provides “gas tight sealing” (Cristy, Col. 6, lines 41-45). Loosening the other cited fasteners would not appear to have any effect, as the members otherwise secured by them would be compressed by the weight of the structure (Cristy, FIG. 9). Because this element is not taught by Cristy, and because the “adjustment” pointed to by the Examiner would be inoperable and / or ineffective, the Cristy reference does not anticipate the fasteners of claim 9.

Claim 9 recites: “a support member in contact with said bearing member and engageable with said substructure for isolating said machine foundation from said substructure.” The Examiner identified the diaphragm 232 of Cristy as the support member of claim 9. As explained in connection with the recitation of the support member in claim 3, the diaphragm 232 is spaced from the substructure by the circular plate 230, rendering the diaphragm 232 incapable of being engaged with the substructure. Thus, the apparatus shown in FIG. 9 of Cristy fails to anticipate the support member of claim 3.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

Claim 21

Dependent claim 21 is dependent on claim 1. The rejection of claim 21 is improper for the reasons stated in regard to claim 1, and because Cristy fails to teach the limitations cited in claim 21.

Claim 21 further defines the rigid enclosure of claim 1, stating “said upper portion of said enclosure being substantially tubular and having open ends; and said lower portion of said enclosure being substantially tubular and having open ends.” The Examiner identified the intermediate support means 250 and the frame member 240 of Cristy as the upper portion of the enclosure. The Examiner identified the circular plate 230 and the circular diaphragm 232 as the lower portion of the enclosure.

Regarding the upper portion of the enclosure, while the frame member 240 might be substantially tubular, the intermediate support means 250 is not. Since both of these elements have been identified by the Examiner as comprising the upper portion of the enclosure, they must, in combination, constitute a structure that is tubular and has open ends. The intermediate support means 250 occupies the alleged open end and provides an end wall for the enclosure that renders the combined structure non-tubular.

Regarding the lower portion of the enclosure, the circular plate 230 and diaphragm 232 do not, in combination, provide a tubular, open-ended structure. The plain meaning of “tube” refers to any various structures or devices such as a hollow, elongated cylinder or a soft container whose contents can be removed by squeezing (Exhibit C, “Tube”, The Merriam Webster Online Dictionary, <http://www.merriam-webster.com/dictionary/tube>, accessed on May 28, 2009; Exhibit D, “Tube,” Dictionary.com, <http://dictionary.reference.com/browse/tube>, accessed on May 28, 2009). Tubular is defined as “long, round, and hollow like a tube” (Exhibit E, “Tubular”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005). Applicant notes that the specification indicates that “tube” includes rectangular structures but does not otherwise overrule the plain meaning of the term (FIG. 3). Because the structure identified as the lower portion of the

enclosure is, in combination, a diaphragm disposed on a plate, the structure is not tubular in shape and does not have open ends. Accordingly, this limitation is not anticipated by Cristy.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

#### Claim 22

Dependent claim 22 is dependent on claim 1. The rejection of claim 22 is improper for the reasons stated with regard to claim 1, and because Cristy fails to teach the limitations cited in claim 22. Claim 22 further defines the rigid enclosure of claim 1 by stating “said upper portion of said enclosure fabricated as an integral body; and said lower portion of said enclosure fabricated as an integral body.” The Examiner has indicated that the frame member 240 and the intermediate support means 250 of Cristy constitute an upper portion of the claimed enclosure. The Examiner reasons that “the pieces are integral in that they are attached to each other.”

The frame member 240 and the intermediate support means 250 of Cristy are not an integral body. Applicant agrees with the Examiner that the broadest reasonable interpretation of integral could include structures that are attached to one another. However, Applicant notes that Cristy describes the intermediate support means 250 as vertically moveable within the frame member 240 in response to inflation and deflation of the diaphragm 232 (Cristy, Col. 6, lines 37-56). While disposition of the intermediate support means 250 within the frame member 240 is operable to restrict the range of motion of the intermediate support means 250 with respect to the frame member 240, this partial restriction of their relative motion does not render these otherwise unconnected members an integral body.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

#### Claim 23

Dependent claim 23 is dependent on claim 1. The rejection of claim 23 is improper for the reasons stated in regard to claim 1, and because Cristy fails to teach the limitations cited in claim 23.

Claim 23 further defines the rigid enclosure of claim 1 by stating “said rigid enclosure connectable to said machine foundation to define a first open end of said rigid enclosure at a top surface of said machine foundation and a second open end of said rigid enclosure at a bottom surface of said machine foundation.” The Examiner identified the intermediate support means 250 and the frame member 240 of Cristy as the upper portion of the enclosure. The Examiner identified the circular plate 230 and the circular diaphragm 232 as the lower portion of the enclosure.

The Examiner asserts that the structure shown in Cristy is capable of being connected to a machine foundation in the manner stated in claim 23. The Examiner identified the first open end as the opening in the frame member 240 through which the intermediate support member 250 extends. The Examiner identified the bore in the circular plate 230 through which an unlabelled bolt extends as the second open end.

The opening identified by the Examiner as the first open end of the enclosure of claim 1 is shown in Fig. 9 of Cristy as being blocked by the intermediate support member 250 of Cristy, which the Examiner contends is a portion of the enclosure. The cited structure cannot reasonably be considered an open end. Similarly, the aperture occupied by the bolt cannot be considered an open end. Rather, FIG. 9 of Cristy clearly shows an enclosure that is substantially closed-ended.

If the structure shown in Cristy were connected to a machine foundation in the manner required by the functional limitations stated in claim 23, it would be inoperable. In particular, if a machine foundation were located such that the frame 240 defined an opening through its top surface, the intermediate support member 250 of Cristy would not be engageable with it to level the machine foundation. If the bottom surface of the machine foundation were coincident with the bottom of the circular plate 230, the machine foundation would be in contact with the substructure, not isolated from it. In short, the apparatus of Cristy is not connectable in the manner claimed, because doing so



would render it completely superfluous and unable to function for its intended purpose. Accordingly, this functional limitation is not satisfied.

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

#### Claim 24

Dependent claim 24 is dependent on claim 9. The rejection of claim 24 is improper for the reasons stated in regard to claim 9, and because Cristy fails to teach the limitations cited in claim 9. Claim 24 further defines the anchor ring of claim 9 and recites the arrangement of the fasteners with respect to the anchor ring by stating: “said anchor ring having an inner perimeter; and said fasteners arrayed around said anchor ring adjacent to the inner perimeter thereof.”

The Examiner identified an unlabeled bolt, which is shown as extending through a flange 236 of frame member 240 and through the circular plate 230 in FIG. 9 of Cristy as satisfying this limitation (reference character C, Office Action dated March 30, 2009, page 3). The Examiner identified a point on the circular plate 230 as its inner perimeter (reference character X, Office Action dated March 30, 2009, page 3).

Applicant first notes that the Examiner, in rejecting claim 9, identified fasteners from the Cristy reference in addition to those identified in the rejection of claim 24 as constituting the plurality of fasteners (reference character W, Office Action dated March 30, 2009, page 3). Some of the fasteners cited against claim 9 are not connected to the anchor ring and thus do not meet the limitation stated in claim 24. The fastener cited in the rejection of claim 24 does not meet the limitation stated in claim 9, namely, “a plurality of fasteners that connect said bearing member to said anchor ring in a vertically spaced relationship,” because the cited fastener is not connected to the intermediate support means. Since the cited art must meet both limitations for the rejection to be proper, the limitation is not met.

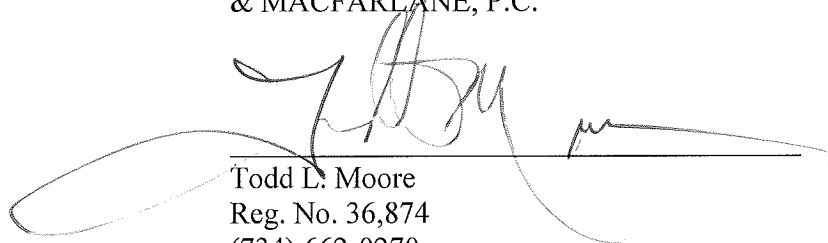
Next, Applicant notes that the cited fasteners are not arrayed around an inner perimeter of an anchor ring. The location noted by the Examiner is clearly the outer periphery of the circular plate 230. Accordingly, this limitation is not met (reference character X, Office Action dated March 30, 2009, page 3).

For at least the reasons stated above, Applicant respectfully requests that the Board reverse this rejection.

**CONCLUSION**

In conclusion, Applicant respectfully submits that the rejection of claims 1-3, 7-9 and 17-24 is in error at least for the foregoing reasons, and therefore, should be reversed.

Respectfully Submitted,  
YOUNG BASILE HANLON  
& MACFARLANE, P.C.

A handwritten signature in black ink, appearing to read 'T. Moore', is written over a horizontal line. The signature is fluid and cursive.

Todd L. Moore  
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DATED: October 5, 2009

**CLAIMS APPENDIX**

Claims 4-6 and 10-16 are withdrawn from consideration.

1. An apparatus for isolating and leveling a machine foundation with respect to a substructure, comprising:

a rigid enclosure connectable to said machine foundation, and said enclosure having a substantially hollow upper portion telescopically adjustably connected to a substantially hollow lower portion to provide for various sizes of said enclosure;

means for rigidly connecting said upper portion of said enclosure to said lower portion of said enclosure for fixing the position of said upper portion of said enclosure with respect to said lower portion of said enclosure; and

means for providing a leveling adjustment of said machine foundation.

2. The apparatus stated in claim 1, wherein said means for rigidly connecting further comprises:

said upper portion of said enclosure having at least one flange having an aperture extending therethrough;

said lower portion of said enclosure having an anchor ring with at least one rod connected thereto and extending through said aperture in said flange of said upper portion; and

a slip joint connected to said flange of said upper portion for releasably connecting said rod to said flange.

3. The apparatus stated in claim 1, wherein said means for providing a leveling adjustment further comprises:

said lower portion of said enclosure having an anchor ring that extends into the interior of said enclosure;

a bearing member disposed within said enclosure and adjustably connected to said anchor ring to provide a leveling adjustment of said machine foundation; and

a support member in contact with said bearing member and engageable with said substructure for isolating said machine foundation from said substructure.

7. The apparatus stated in claim 3, further comprising:

said support member adaptable to be removably disposed between said bearing member and said substructure so that said support member may be replaced with other support members.

8. The apparatus stated in claim 3, said support member further comprising:

an inflatable air bag for adjustably supporting said machine foundation.

9. An apparatus for isolating and leveling a machine foundation with respect to a substructure, comprising:

a rigid enclosure connectable to said machine foundation, and said enclosure having a substantially hollow upper portion and a substantially hollow lower portion telescopically connected to one another to provide for various sizes of said enclosure;

said lower portion of said enclosure having an anchor ring that extends into the interior of said enclosure;

a bearing member disposed within said enclosure above said anchor ring;

a plurality of fasteners that connect said bearing member to said anchor ring in a vertically spaced relationship for vertical adjustment of said anchor ring with respect to said bearing member to provide a leveling adjustment of said machine foundation; and

a support member in contact with said bearing member and engageable with said substructure for isolating said machine foundation from said substructure.

17. The apparatus stated in claim 9, further comprising:

said support member adaptable to be removably disposed between said bearing member and said substructure so that said support member may be replaceable.

18. The apparatus stated in claim 9, said support member further comprising:

an inflatable air bag for adjustably supporting said machine foundation.

19. The apparatus stated in claim 18, further comprising:

a conduit coupled to and in communication with said air bag; and

said conduit communicable with a pressurized air source for communicating pressurized air to and from said air bag.

20. The apparatus stated in claim 19, further comprising:

said conduit extending through said substructure and into said enclosure wherein said conduit communicates with said air bag.

21. The apparatus stated in claim 1, further comprising:

said upper portion of said enclosure being substantially tubular and having open ends;  
and

said lower portion of said enclosure being substantially tubular and having open ends.

22. The apparatus stated in claim 1, further comprising:

said upper portion of said enclosure fabricated as an integral body; and

said lower portion of said enclosure fabricated as an integral body.

23. The apparatus stated in claim 1, further comprising:

said rigid enclosure connectable to said machine foundation to define a first open end of said rigid enclosure at a top surface of said machine foundation and a second open end of said rigid enclosure at a bottom surface of said machine foundation.

24. The apparatus stated in claim 9, further comprising:

said anchor ring having an inner perimeter; and

said fasteners arrayed around said anchor ring adjacent to the inner perimeter thereof.

**EVIDENCE APPENDIX**

- Exhibit A “Telescopic”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005, originally entered into the record by transmittal dated October 21, 2008.
- Exhibit B “Ring”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005 originally entered into the record by transmittal dated October 21, 2008.
- Exhibit C “Tube”, The Merriam Webster Online Dictionary, <http://www.merriam-webster.com/dictionary/tube>, accessed on May 28, 2009 originally entered into the record by transmittal dated June 1, 2009.
- Exhibit D Exhibit D, “Tube,” Dictionary.com, <http://dictionary.reference.com/browse/tube>, accessed on May 28, 2009 originally entered into the record by transmittal dated June 1, 2009.
- Exhibit E Exhibit E, “Tubular”, New Oxford American Dictionary, 2<sup>nd</sup> Ed., Oxford University Press, New York, 2005, originally entered into the record by transmittal dated October 21, 2008.



tabbies

EXHIBIT  
A  
pg. 33

**adj.** going toward or situated on the right: the rock face is climbed via a rightward curving crack.

**right whale** *n.* a baleen whale with a large head and a deeply curved jaw, of Arctic and temperate waters. • Family Balaenidae: two genera and three species, in particular *Balaena glacialis*, which has distinctive patches of callosities on the snout. See also BOW-HEAD.

**right wing** *n.* (the right wing) 1 the conservative or reactionary section of a political party or system. [with reference to the National Assembly in France (1789-91), where the nobles sat to the president's right and the commons to the left.] 2 the right side of a team on the field in soccer, rugby, and field hockey. ■ the right side of an army.

**adj.** conservative or reactionary: a right-wing Republican senator. —**right-wing-er** *n.*

**righty** /'ritē/ *n.* (pl. righties) informal 1 a right-handed person. 2 a rightist.

**adv.** with the right hand or as customary for a right-handed person: he bats righty.

**righty-ho** *exclam.* variant spelling of RIGHTO.

**rigid** /'rijd/ *adj.* unable to bend or be forced out of shape; not flexible: a seat of rigid orange plastic | rigid ships are the dirigibles in which the bag is built around a metallic framework. ■ (of a person or part of the body) stiff and unyielding, esp. as a result of shock or fear: his face grew rigid with fear. ■ figurative not able to be changed or adapted: teachers are being asked to unlearn rigid rules for labeling children. ■ figurative (of a person or their behavior) not adaptable in outlook, belief, or response: ski instructors have become less rigid about style. ▶late Middle English: from Latin *rigidus*, from *rigere* 'be stiff'. —**rigidity** /'rijdē,fi/ *v.* —**rigid-ly** /'rijdēlē/ *adv.* —**rigid-ness** *n.*

**rigid des-ig-na-tor** *n.* *Philosophy* a term that identifies the same object or individual in every possible world.

**Rigil Ken-tau-rus** /'rijel ken'tōres/ (also **Rigil Kent**) *Astronomy* the star Alpha Centauri. ▶Arabic, literally 'the foot of the Centaur.'

**rig-mar-ole** /'rig(ə)mə,rōl/ *n.* [usu. in *sing.*] a lengthy and complicated procedure: he went through the rigmarole of securing the front door. ■ a long, rambling story or statement. ▶mid 18th cent.: apparently an alteration of *ragman roll*, originally denoting a legal document recording a list of offenses.

**rigor** /'rigər/ *n.* 1 the quality of being extremely thorough, exhaustive, or accurate: his analysis is lacking in rigor. ■ severity or strictness: the full rigor of the law. ■ (rigors) demanding, difficult, or extreme conditions: the rigors of a harsh winter. 2 *Medicine* a sudden feeling of cold with shivering accompanied by a rise in temperature, often with copious sweating, esp. at the onset or height of a fever. ■ short for RIGOR MORTIS. ▶late Middle English: from Latin, literally 'stiffness,' from *rigere* 'be stiff.'

**rig-or-ism** /'rigə,rizəm/ *n.* extreme strictness in interpreting or enforcing a law, precept, or principle. ■ (in the Roman Catholic Church) formerly, the doctrine that in doubtful cases of conscience the strict course is always to be followed. —**rig-or-ist** *n.* & *adj.*

**rig-or mort-is** /'rigər 'mōrtəs/ *n.* *Medicine* stiffening of the joints and muscles of a body a few hours after death, usually lasting from one to four days. ▶mid 19th cent.: from Latin, literally 'stiffness of death.'

**rig-or-ous** /'rigərəs/ *adj.* extremely thorough, exhaustive, or accurate: the rigorous testing of consumer products. ■ (of a rule, system, etc.) strictly applied or adhered to: rigorous controls on mergers. ■ (of a person) adhering strictly or inflexibly to a belief, opinion, or way of doing something: a rigorous teetotaler. ■ (of an activity) physically demanding: my exercise regime is a little more rigorous than most. ■ (of the weather or climate) harsh: the rigorous climate in the regions of perpetual snow high in the Himalayas. ▶late Middle English: from Old French *rigoroso* or late Latin *rigoroso*, from *rigor* 'stiffness' (see RIGOR). —**rig-or-ous-ly** *adv.* —**rig-or-ous-ness** *n.*

**rig-our** *n.* British spelling of RIGOR (sense 1).

**rig-out** *n.* informal, chiefly Brit. an outfit of clothes.

**Rig Ve-da** /'rig 'vədə; 'vədə/ *Hinduism* the oldest and principal of the Vedas, a collection of 1028 hymns composed in the 2nd millennium BC in early Sanskrit. See VEDA. ▶from Sanskrit *ṛgveda*, from *ṛk* 'sacred' stanza + *veda* 'sacred' knowledge.

**Riis** /'ri:s/, Jacob August (1849-1914), U.S. journalist and social reformer; born in Denmark. A police reporter for the *New York Tribune* 1877-88 and the *New York Evening Sun* 1888-99, he was a crusader for parks, playgrounds, and improved schools and

housing in urban areas. He wrote *How the Other Half Lives* (1890).

**Ri-je-ka** /'ri'jekə/ a port on the Adriatic coast of Croatia; pop. 168,000. Italian name FIUME.

**rijst-taf-el** /'ri,stəfəl/ *n.* a meal of Southeast Asian food consisting of a selection of spiced rice dishes. ▶Dutch, from *rijst* 'rice' + *tafel* 'table.'

**riki-shi** /'ri:kə,shē/ *n.* (pl. same) a sumo wrestler. ▶Japanese, from *riki* 'strength' + *shi* 'warrior.'

**Riks-mål** /'rik,smål; 'rēk-/ *n.* another term for BOK-MÅL. ▶Norwegian, from *rike* 'state, nation' + *mål* 'language.'

**rile** /'ril/ *v.* [trans.] 1 informal make (someone) annoyed or irritated: it was his air of knowing all the answers that riled her | he's getting you all riled up. 2 make (water) turbulent or muddy. ▶early 19th cent.: variant of ROLL.

**Riley** /'ri:le/ *n.* (in phrase the life of Riley) informal a luxurious or carefree existence: all the older boys are driving big expensive cars and living the life of Riley. ▶early 20th cent.: of unknown origin.

**Rile** /'ril/ *n.* (Louise) (1931- ), English painter. A leading exponent of op art, she worked with flat patterns to create optical illusions of light and movement.

**Riley**3, James Whitcomb (1849-1916), U.S. poet; pen name Benj. F. Johnson, of Boone. Known as the common people's poet, esp. in Indiana, his most popular poems included "Little Orphant Annie" (1885), "The Raggedy Man" (1890), and "When the Frost Is on the Punkin" (1896).

**ril-le-vo** *n.* variant spelling of RELIEVO.

**Ril-ke** /'ri:kə/, Rainer Maria (1875-1926), Austrian poet, born in Bohemia; pseudonym of René Karl Wilhelm Josef Maria Rilke. His conception of art as a quasi-religious vocation culminated in his best-known works, the *Duino Elegies* and *Sonnets to Orpheus* (both 1923).

**rill** /'ril/ *n.* a small stream. ■ a shallow channel cut in the ground by running water. ■ variant spelling of RILLE.

*v.* [intrans.] (of water) flow in or as in a rill: the spring-water rilled over our cold hands. ■ [as *adj.*] (rilled) indented with small grooves: blocks of butter pounded into artful shapes with rilled paddles. ▶mid 16th cent.: probably of Low German origin.

**rille** /'rilə/ (also **rill**) *n.* *Astronomy* a fissure or narrow channel on the moon's surface. ▶mid 19th cent.: from German (see RILL).

**ril-lettes** /'rē'yet/ *pl. n.* pâté made of minced pork or other light meat, seasoned and combined with fat. ▶French, diminutive (plural) of Old French *rille* 'strip of pork.'

**rim** /'rim/ *n.* the upper or outer edge of an object, typically something circular or approximately circular: a china egg cup with a gold rim. See note at BORDER. ■ (also wheel rim) the outer edge of a wheel, on which the tire is fitted. ■ the metal hoop from which a basketball net is suspended. ■ (often rims) the part of a glasses frame surrounding the lenses. ■ a limit or boundary of something: the outer rim of the solar system. ■ an encircling stain or deposit: a thick rim of suds.

*v.* (rimmed, rim-ming) [trans.] form or act as an outer edge or rim for: a huge lake rimmed by glaciers | [as *adj.* in combination] (-rimmed) steel-rimmed glasses. ■ (usu. be rimmed) mark with an encircling stain or deposit: his collar was rimmed with dirt. ▶Old English *rima* 'a border, coast'; compare with Old Norse *rimi* 'ridge, strip of land' (the only known cognate). —**rim-less** *adj.*

**rim**2 *v.* (rimmed, rim-ming) [trans.] vulgar slang lick or suck the anus of (someone) as a means of sexual stimulation.

**Rim-baud** /'ram'bō; ran'bō/, (Jean Nicholas) Arthur (1854-91), French poet. Known for his symbolist prose poems and for his stormy relationship with Paul Verlaine, he stopped writing at about the age of 20 and spent the rest of his life traveling.

**rime** /'rim/ *n.* (also **rime ice**) frost formed on cold objects by the rapid freezing of water vapor in cloud or fog. ■ poetic/literary hoarfrost.

*v.* [trans.] poetic/literary cover (an object) with hoarfrost: he does not brush away the frost that rimes his beard. ▶Old English *hrim*, of Germanic origin; related to Dutch *rijm*. The word became rare in Middle English but was revived in literary use at the end of the 18th cent.

**rime**2 *n.* & *v.* archaic spelling of RHYME.

**rim-fire** /'rim,fɪr/ *adj.* [attrib.] (of a cartridge) having

the primer around the edge of the base. ■ (of a rifle) adapted for such cartridges.

**Rim-i-ni** /'riməni/ a port and resort on the Adriatic coast of northeastern Italy; pop. 131,000.

**rim-land** /'rim,land/ *n.* (also **rimlands**) a peripheral area of a country or region.

**rim lock** *n.* a lock that is fitted to the surface of a door with a matching box fitted into the doorjamb.

**Rim-mon** /'rimən/ (in the Bible) a deity worshipped in ancient Damascus (2 Kings 5: 18).

**rim-rock** /'rim,ræk/ *n.* an outcrop of resistant rock forming a margin to a gravel deposit, esp. one forming a cliff at the edge of a plateau.

**rim-shot** (also **rim shot**) *n.* 1 a drum stroke in which the stick strikes the rim and the head of the drum simultaneously. 2 in basketball, a toss in which the ball hits the rim of the basket.

**Rim-sky-Kor-sa-kov** /'rimskē 'kōrsē,kōl/, Nikolai (Andreevich) (1844-1908), Russian composer. He established his reputation with his orchestral suite *Scheherazade* (1888) and his many operas drawing on Russian and Slavic folk tales.

**rim-y** /'rimē/ *adj.* (rim-ler, rim-est) poetic/literary covered with frost.

**rind** /'rind/ *n.* the tough outer layer of something, in particular: ■ the tough outer skin of certain fruit, esp. citrus fruit. ■ the hard outer edge of cheese or bacon, usually removed before eating. ■ the bark of a tree or plant. ■ the hard outer layer of a rhizomorph or other part of a fungus. ■ the skin or blubber of a whale.

*v.* [trans.] strip the bark from (a tree). ▶Old English *rind(e)* 'bark of a tree'; related to Dutch *ruin* and German *Rinde*, of unknown origin. —**rind-ed** *adj.* [in combination] yellow-rinded lemons. —**rind-less** *adj.*

**rin-der-pest** /'rinder,pest/ *n.* *Veterinary Medicine* an infectious disease of ruminants, esp. cattle, caused by a paramyxovirus. It is characterized by fever, dysentery, and inflammation of the mucous membranes. ▶mid 19th cent.: from German, from *Rinder* 'cattle' + *Pest* 'plague.'

**ring**1 /'rɪŋ/ *n.* 1 a small circular band, typically of precious metal and often set with one or more gemstones, worn on a finger as an ornament or a token of marriage, engagement, or authority. ■ a circular band of any material: fried onion rings. ■ *Astronomy* a thin band or disk of rock and ice particles around a planet. ■ a circular marking or pattern: black rings around her eyes. ■ short for TREE RING. ■ [usu. as *adj.*] *Archaeology* a circular prehistoric earthwork, typically consisting of a bank and ditch: a ring ditch. 2 an enclosed space, typically surrounded by seating for spectators, in which a sport, performance, or show takes place: a circus ring. ■ a roped enclosure for boxing or wrestling. ■ (the ring) the profession, sport, or institution of boxing. 3 a group of people or things arranged in a circle: he pointed to the ring of trees. ■ (in a ring) arranged or grouped in a circle: everyone sat in a ring, holding hands. ■ [usu. with *adj.*] a group of people drawn together due to a shared interest or goal, esp. one involving illegal or unscrupulous activity: the police had been investigating the drug ring. ■ *Chemistry* another term for CLOSED CHAIN. 4 a circular or spiral course: they were dancing energetically in a ring. 5 *Mathematics* a set of elements with two binary operations, addition and multiplication, the second being distributive over the first and associative.

*v.* [trans.] 1 (often be ringed) surround (someone or something), esp. for protection or containment: the courthouse was ringed with police. ■ form a line around the edge of (something circular): dark shadows ringed his eyes. ■ draw a circle around (something), esp. to focus attention on it: an area of Tribeca had been ringed in red. 2 put a circular band through the nose of (a bull, pig, or other farm animal) to lead or otherwise control it. ▶Old English *hring*, of Germanic origin; related to Dutch *ring*, German *Ring*, also to the noun RANK1. —**ring-ed** *adj.* [in combination] the five-ringed Olympic emblem. —**ring-less** *adj.*

▶**PHRASES** □ run rings around someone informal out-class or outwit someone very easily. □ throw one's hat in the ring see HAT

**ring**2 *v.* (past rang /'ræŋ/; trans.) make a clear shot rang out | a bell ringing of fire alarms.

Pronunciation Key  
fir; a hat; ā rate; ā ca  
fjt; ī by; i(e) ear; NG s  
goo; ou out; SH she; TH

EXHIBIT

B

Pg. 34



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## tube

Entries 1 to 10 of 33. [Next 10](#)

tube

auditory tube

boob tube

breathing tube

☒ On ☐ Off

Main Entry: **tube**

Pronunciation: \ˈtüb, ˈtyüb\

Function: *noun*

Etymology: French, from Latin *tubus*; akin to Latin *tuba* trumpet

Date: 1651

**1** : any of various usu. cylindrical structures or devices: as **a** : a hollow elongated cylinder; *especially* : one to convey fluids **b** : a soft tubular container whose contents (as toothpaste) can be removed by squeezing **c** (1) : **TUNNEL** (2) *British* : **SUBWAY** **b d** : the basically cylindrical section between the mouthpiece and bell that is the fundamental part of a wind instrument

**2 a** : a slender channel (as a fallopian tube or a pollen tube) within a plant or animal body : **DUCT** **b** : the narrow basal portion of a corolla with united petals or a calyx with united sepals

**3** : **INNER TUBE**

**4 a** : **ELECTRON TUBE**; *especially* : **VACUUM TUBE** **b** : **CATHODE-RAY TUBE**; *especially* : a television picture tube **c** : **TELEVISION**

**5** : an article of clothing shaped like a tube <a tube top> <tube socks>

— **tubed** \ˈtübɪd, ˈtyübɪd\ *adjective*

— **tube-like** \ˈtüb-lik, ˈtyüb-lik\ *adjective*

— **down the tube** or **down the tubes** : into a state of collapse or deterioration

[Learn more about "tube" and related topics at Britannica.com](#)

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### Pronunciation Symbols

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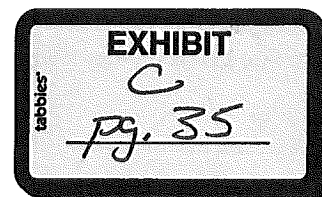
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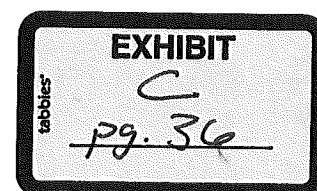
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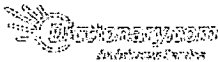
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


After

When it comes to weight loss surgery

BARIX CLINICS

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**tube**  [toob, tyoob]  [Show IPA](#) *noun, verb, tubed, tubing.*

- noun**
1.

a hollow, usually cylindrical body of metal, glass, rubber, or other material, used esp. for conveying or containing liquids or gases.
2.

a small, collapsible, cylinder of metal or plastic sealed at one end and having a capped opening at the other from which paint, toothpaste, or some other semifluid substance may be squeezed.
3.

*Anatomy, Zoology.* any hollow, cylindrical vessel or organ: *the bronchial tubes.*
4.

*Botany.*

a. any hollow, elongated body or part.

b. the united lower portion of a gamopetalous corolla or a gamosepalous calyx.
5.

INNER TUBE.
6.

*Electronics.* ELECTRON TUBE.
7.

*Informal.*

a. TELEVISION.

b. a television set.
8.

MAILING TUBE.
9.

the tubular tunnel in which an underground railroad runs.
10.

the railroad itself.
11.

*Surfing Slang.* the curled hollow formed on the underside of a cresting wave.
12.

*British.* SUBWAY (def. 1).
13.

*Australian Slang.* a can of beer.
14.

*Older Slang.* a telescope.

- verb (used with object)**
15.

to furnish with a tube or tubes.
16.

to convey or enclose in a tube.
17.

to form into the shape of a tube; make tubular.
- Idiom**
18.

**down the tube or tubes, Informal.** into a ruined, wasted, or abandoned state or condition.

**Origin:**  
1590–1600; < L *tubus* pipe

**Related forms:**  
*tubeless, adjective*  
*tubelike, adjective*

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**—noun**  
a doughnut-shaped, flexible rubber tube inflated inside a tire to bear

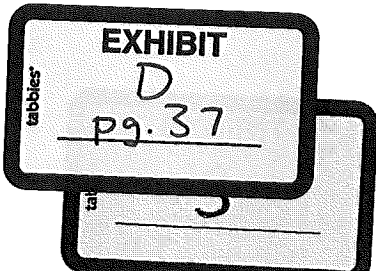
Also called **tube**.

tubbiness's  
tubbinesses  
tubbinesses'  
tubbing  
tubby  
**tube**  
tube anemone  
tube cell  
tube curare  
tube feet  
tube foot



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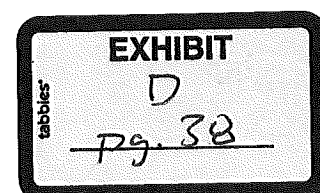


Origin:  
1890-95

**sub-way**  [suhb-vey]  [Show IPA](#)

**-noun**

1. Also called, *especially British*, **tube**, **underground**, an underground electric railroad, usually in a large city.



2. *Chiefly British.* a short tunnel or underground passageway for pedestrians, automobiles, etc.; underpass.

—*verb (used without object)*

3. to be transported by a subway: *We subways uptown.*

**Origin:**

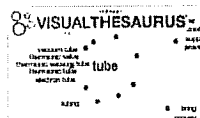
1820–30; SUB- + WAY <sup>1</sup>

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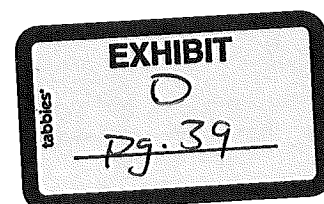
**Related Words for : tube**

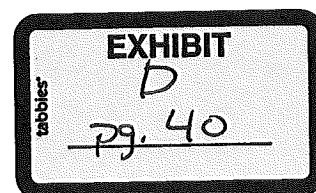
tubing, electron tube, thermionic tube,  
thermionic vacuum tube, thermionic  
valve

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**Tube**

**Tube**, n. (Elec. Railways) A tunnel for a tube railway; also (Colloq.), a tube railway. [Chiefly Eng.]

**Tube**

**Tube**, n. [L. tubus; akin to tuba a trumpet; cf F. tube.]

1. A hollow cylinder, of any material, used for the conveyance of fluids, and for various other purposes; a pipe.
2. A telescope. "Glazed optic tube." --Milton.
3. A vessel in animal bodies or plants, which conveys a fluid or other substance.
4. (Bot.) The narrow, hollow part of a gamopetalous corolla.
5. (Gun.) A priming tube, or friction primer. See under Priming, and Friction.
6. (Steam Boilers) A small pipe forming part of the boiler, containing water and surrounded by flame or hot gases, or else surrounded by water and forming a flue for the gases to pass through.
7. (Zo["o"]l.) (a) A more or less cylindrical, and often spiral, case secreted or constructed by many annelids, crustaceans, insects, and other animals, for protection or concealment. See Illust. of Tubeworm. (b) One of the siphons of a bivalve mollusk.

Capillary tube, a tube of very fine bore. See Capillary.

Fire tube (Steam Boilers), a tube which forms a flue.

Tube coral. (Zo["o"]l.) Same as Tubipore.

Tube foot (Zo["o"]l.), one of the ambulacral suckers of an echinoderm.

Tube plate, or Tube sheet (Steam Boilers), a flue plate. See under Flue.

Tube pouch (Mil.), a pouch containing priming tubes.

Tube spinner (Zo["o"]l.), any one of various species of spiders that construct tubelike webs. They belong to Tegenaria, Agelena, and allied genera.

Water tube (Steam Boilers), a tube containing water and surrounded by flame or hot gases.

**Tube**

**Tube**, v. t. [imp. & p. p. Tubed; p. pr. & vb. n. Tubing.] To furnish with a tube; as, to tube a well.

## Language Translation for : tube

Spanish: tubo, tubería, German: das Rohr,

Japanese: パイプ

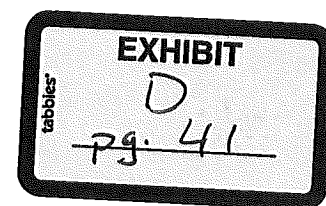
More Translations »

**tube**

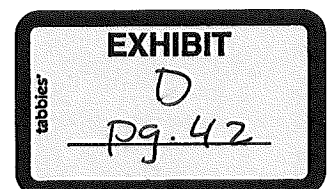
1. n. A CRT terminal. Never used in the mainstream sense of TV; real hackers don't watch TV, except for Loony Toons, Rocky & Bullwinkle, Trek Classic, the Simpsons, and the occasional cheesy old swashbuckler movie.
2. [IBM] To send a copy of something to someone else's terminal. "Tube me that note?"

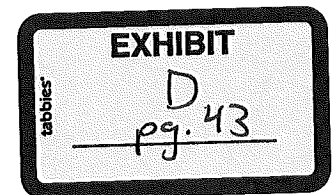
**tube**

1611, from M.Fr. tube (1460), from L. tubus "tube, pipe," of unknown origin (H.D. Browne, in the "Londoner" of June 30, 1900); tube for "from 1959, short for cathode ray tube or picture tube. Tube top as a form of a tube or pipe," but the modern slang sense is from 1982, is attested from 1963 as "frankfurter," slang meaning "penis" is recorded.



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Main Entry: <sup>1</sup>tube

Pronunciation: 't(y)üb

Function: *noun*

**1** : a slender channel within a plant or animal body : DUCT —see BRONCHIAL TUBE, EUSTACHIAN TUBE, FALLOPIAN TUBE

**2a** : an often complex piece of laboratory or technical apparatus usually of glass and commonly serving to isolate or convey a product of reaction **tube** > **b** : TEST TUBE

**3** : a collapsible cylindrical container (as of metal or plastic) from which a paste is dispensed by squeezing **tube** >

**4** : a hollow cylindrical device (as a cannula) used for insertion into bodily passages or hollow organs for removal or injection of materials

Main Entry: <sup>2</sup>tube

Function: *transitive verb*

Inflected Forms: **tubed**; **tub-ing**

: to furnish with, enclose in, or pass through a tube **tubed** — *Anesthesia Digest* >

**tube** (tōōmacr;b, ty&oomacr;b)

*n.*

1. A hollow cylinder, especially one that conveys a fluid or functions as a passage.
2. An anatomical structure or organ having the shape or function of a tube; a duct.

**tube**

1. A CRT terminal. Never used in the mainstream sense of TV; real hackers don't watch TV, except for Loony Toons, Rocky & Bullwinkle, Trek Classic, the Simpsons, and the occasional cheesy old swashbuckler movie.

2. **electron tube**.

3. (IBM) To send a copy of something to someone else's terminal.

"Tube me that note."

[The Jargon File]

(1996-02-05)

**tube**

see down the tubes.

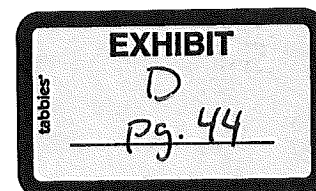
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Mataura, is on the island of Tubuai. Also called the AUSTRAL ISLANDS.

**tu-bu-lar** /'t(y)öbyələr/ ▶ *adj.* 1 long, round, and hollow like a tube: tubular flowers of deep crimson. 2 made from a tube or tubes: tubular steel chairs. 3 *Surling* (of a wave) hollow and well curved. 2 *Medicine* of or involving tubules or other tube-shaped structures.

▶ *n.* 1 short for TUBULAR TIRE. 2 (tubulars) oil-drilling equipment made from tubes. ▶ late 17th cent.: from Latin *tubulus* 'small tube' + *-AR*.

**tu-bu-lar bells** ▶ *plural n.* an orchestral instrument consisting of a row of vertically suspended metal tubes struck with a mallet.

**tu-bu-lar tire** ▶ *n.* a completely enclosed tire cemented onto the wheel rim, used on racing bicycles.

**tu-bule** /'t(y)ö,byöl/ ▶ *n.* a minute tube, esp. as an anatomical structure: kidney tubules. ▶ late 17th cent.: from Latin *tubulus*, diminutive of *tubus* 'tube.'

**Tu-bu-li-den-ta-ta** /,t(y)öbyəliden'tätə/ *Zoology* an order of mammals that comprises only the aardvark. ▶ modern Latin (plural), from TUBULE + Greek *odont-* 'tooth.'

**tu-bu-lin** /'t(y)öbyelin/ ▶ *n.* Biochemistry a protein that is the main constituent of the microtubules of living cells. ▶ 1960s: from TUBULE + *-IN*.

**Tu-cana** /t(y)ö'kāne; -'kanə/ *Astronomy* a southern constellation (the Toucan), south of Grus and Phoenix. It contains the Small Magellanic Cloud. 2 [as *genitive*] (Tucanae /-nə/) used with a preceding letter or numeral to designate a star in this constellation: the star Delta Tucanae. ▶ modern Latin.

**Tuch-man** /'tekman/, Barbara (1912–89), U.S. historian and writer. Her many works include *The Guns of August* (1962), *Stillwell and the American Experience in China, 1911–45* (1971), *A Distant Mirror* (1978), and *The First Salute* (1988).

**tuck** /tek/ ▶ *v.* 1 [trans.] push, fold, or turn (the edges or ends of something, esp. a garment or bedclothes) so as to hide them or hold them in place: he tucked his shirt into his trousers. 2 (tuck someone in) make someone, esp. a child, comfortable in bed by pulling the edges of the bedclothes firmly under the mattress: he carried her back to bed and tucked her in. 3 draw (something, esp. part of one's body) together into a small space: she tucked her legs under her. 4 (often be tucked) put (something) away in a specified place or way so as to be hidden, safe, comfortable, or tidy: the colonel was coming toward her, his gun tucked under his arm. 2 [trans.] make a flattened, stitched fold in (a garment or material), typically so as to shorten or tighten it, or for decoration.

▶ *phrasal v.* 1 **tuck something away** 1 store something in a secure place: employees can tuck away a percentage of their pretax salary. 2 [usu. be tucked away] put or keep someone or something in an inconspicuous or concealed place: the police station was tucked away in a square behind the main street. 2 *informal* eat a lot of food. 3 **tuck in (or into)** *informal* eat food heartily: I tucked into the bacon and scrambled eggs.

▶ *n.* 1 a flattened, stitched fold in a garment or material, typically one of several parallel folds put in a garment for shortening, tightening, or decoration: a dress with tucks along the bodice. 2 [usu. with *adj.*] *informal* a surgical operation to reduce surplus flesh or fat: a tummy tuck. 2 *Brit., informal* food, typically cakes and candy, eaten by children at school as a snack: [as *adj.*] a tuck shop. 3 (also tuck position) (in diving, gymnastics, downhill skiing, etc.) a position with the knees bent and held close to the chest, often with the hands clasped around the shins. ▶ Old English *tūcan* 'to punish, ill-treat'; related to *tug*. Influenced in Middle English by Middle Dutch *tucken* 'pull sharply.'

**tuck-a-hoe** /'teke,hö/ ▶ *n.* a root or other underground plant part formerly eaten by North American Indians, in particular: • the starchy rhizome of an arum that grows chiefly in marshland (*Peltandra virginica*, family Araceae). • the underground sclerotium of a bracket fungus (*Poria cocos*, class Hymenomycetes). ▶ early 17th cent.: from Virginia Algonquian *tuck-anhoughie*.

**Tucker** 1 /'təker/, Richard (1913–75) U.S. opera singer; born Rubin Ticker. A tenor, he sang with the Metropolitan Opera for 30 seasons, beginning with his debut in 1945.

**Tucker** 2, Tanya (Denise) (1958– ) U.S. country and pop singer. At age 13, she became known for her rendition of "Delta Dawn" (1972). Her later albums include *What Do I Do with Me* (1991) and *Complicated* (1997).

**tucker** /'təker/ ▶ *n.* historical a piece of lace or linen worn in or around the top of a bodice or as an insert

at the front of a low-cut dress. See also ONE'S BEST BIB AND TUCKER at B181.

▶ *v.* [trans.] (usu. be tucked out) *informal* exhaust; wear out.

**tuck-et** /'tekɪt/ ▶ *n.* archaic a flourish on a trumpet. ▶ late 16th cent.: from obsolete *tuck* 'beat (a drum),' from Old Northern French *toquer*, from the base of *TOUCH*.

**tuck-in** ▶ *n.* *Brit., informal*, dated a large meal.

**tuck-ing** /'tekiŋ/ ▶ *n.* a series of stitched tucks in a garment.

**tuck-point** ▶ *v.* [trans.] point (brickwork) with colored mortar so as to have a narrow groove that is filled with fine white lime putty allowed to project slightly.

**tuck po-si-tion** ▶ *n.* see TUCK (sense 3).

**tu-co-tu-co** /'tökö 'tökö/ ▶ *n.* (pl. -cos) a burrowing ratlike rodent native to South America. • Family Ctenomyidae and genus *Ctenomys*: numerous species. ▶ mid 19th cent.: imitative of the call of some species.

**Tuc-son** /'tö, sän; 'tö, sän/ a city in southeastern Arizona; pop. 486,699. Its desert climate makes it a tourist resort.

**tu-cu-xi** /tö 'kööhə/ ▶ *n.* (pl. same) a small stout-bodied dolphin with a gray back and pinkish underparts, living along the coasts and rivers from Panama to Brazil and in the Amazon. • *Sotalia fluviatilis*, family Delphinidae.

**'tude** /t(y)ö'd/ ▶ *n.* *informal* short for ATTITUDE: the song bristles with lotsa 'tude.

**-tude** ▶ *suffix* forming abstract nouns such as *beatitude*, *solitude*. ▶ from French *-tude*, from Latin *-tudo*.

**Tu-deh** /'tödə/ (also Tu-deh Party) the Communist Party of Iran. ▶ Persian, literally 'mass.'

**Tu-dor** 1 /'t(y)ö'dər/ ▶ *adj.* of or relating to the English royal dynasty that held the throne from the accession of Henry VII in 1485 until the death of Elizabeth I in 1603. 2 of, denoting, or relating to the prevalent architectural style of the Tudor period, characterized esp. by half-timbering.

▶ *n.* a member of this dynasty.

**Tu-dor** 2, Henry, Henry VII of England (see HENRY 1). **Tu-dor** 3, Mary, Mary I of England (see MARY 2).

**Tu-dor rose** ▶ *n.* a conventionalized, typically five-lobed figure of a rose used in architectural and other decoration in the Tudor period, in particular a combination of the red and white roses of Lancaster or York adopted as a badge by Henry VII.

**Tues.** (also Tue.) ▶ *abbr.* Tuesday.

**Tues-day** /'t(y)öz,də/ ▶ *n.* the day of the week before Wednesday and following Monday: come to dinner on Tuesday | the following Tuesday | [as *adj.*] Tuesday afternoons.

▶ *adv.* on Tuesday: they're all leaving Tuesday. 2 (Tuesdays) on Tuesdays; each Tuesday: she works late Tuesdays. ▶ Old English *Tiwesdæg*, named after the Germanic god Tiw (associated with Mars); translation of Latin *dies Marti* 'day of Mars'; compare with Swedish *tisdag*.

**tu-fa** /'t(y)öfə/ ▶ *n.* a porous rock composed of calcium carbonate and formed by precipitation from water, e.g., around mineral springs. 2 another term for TUFF. ▶ late 18th cent.: from Italian, variant of *tufo* (see TUFF). — *tu-fa-ceous* /t(y)ö'fəshəs/ *adj.*

**tuff** /təf/ ▶ *n.* a light, porous rock formed by consolidation of volcanic ash. ▶ mid 16th cent.: via French from Italian *tufo*, from late Latin *tofus*, Latin *tophus* (see TOPHUS). — *tuff-a-ceous* /tə'fəshəs/ *adj.*

**tuff-et** /'teft/ ▶ *n.* 1 a tuft or clump of something: grass tufts. 2 a footstool or low seat. ▶ mid 16th cent.: alteration of TUFF.

**tuff** /təft/ ▶ *n.* a bunch or collection of something, typically threads, grass, or hair, held or growing together at the base: scrubby tufts of grass. 2 *Anatomy & Zoology* a bunch of small blood vessels, respiratory tentacles, or other small anatomical structures.

▶ *v.* [trans.] 1 (usu. be tufted) provide (something) with a tuft or tufts. 2 *Needlework* make depressions at regular intervals in (a mattress or cushion) by passing a thread through it. ▶ late Middle English: probably from Old French *tofe*, of unknown origin. The final -t is typical of phonetic confusion between -f and -ft at the end of words; compare with GRAFT 1. — *tuft-y* *adj.*

**tufted** /'teftəd/ ▶ *adj.* having or growing in a tuft or tufts: tufted grass.

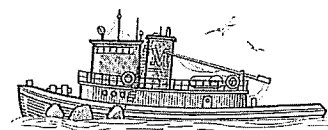
**tufted duck** ▶ *n.* a Eurasian freshwater diving duck with a drooping crest, the male having mainly black and white plumage. • *Aythya fuligula*, family Anatidae.

**Tu Fu** /'dö 'fö/ (also Du Fu) (AD 712–770), Chinese poet. He is noted for his bitter satiric poems that attacked social injustice and corruption at court.

**tug** /təg/ ▶ *v.* (tugged, tug-ging) [trans.] pull (something) hard or suddenly: she tugged off her boots | [intrans.] he tugged at Tom's coat sleeve.

▶ *n.* 1 a hard or sudden pull: another tug and it came loose | *figurative* an overwhelming tug of attraction. 2 short for TUGBOAT. 3 an aircraft towing a glider. 3 a loop from a horse's saddle that supports a shaft or trace. ▶ Middle English: from the base of *row*. The noun is first recorded (late Middle English) in sense 3. — *tug-ger* *n.*

**tug-boat** ▶ *n.* a powerful boat used for towing larger vessels, esp. in harbor.



tugboat

**tug of war** ▶ *n.* a contest in which two teams pull at opposite ends of a rope until one drags the other over a central line. 2 *figurative* a situation in which two evenly matched people or factions are striving to keep or obtain the same thing: a tug of war between builders and environmentalists.

**tu-grik** /'tögrɪk/ ▶ *n.* (pl. same or -griks) the basic monetary unit of Mongolia, equal to 100 mongos. ▶ Mongolian.

**tu-i** /'töi/ ▶ *n.* a large New Zealand honeyeater with glossy blackish plumage and two white tufts at the throat. • *Prosthemadura novaezealandiae*, family Meliphagidae. ▶ mid 19th cent.: from Maori.

**tuile** /twe/ ▶ *n.* (pl. same) a thin curved cookie, typically made with almonds. ▶ French, literally 'tile.'

**Tu-il-er-ies** /'twēləreɪz/ (also Tuilleries Gardens) formal gardens next to the Louvre in Paris. The gardens are all that remain of the Tuileries Palace, a royal residence begun in 1564 and burned down in 1871 during the Commune of Paris. ▶ French, literally 'Tile works,' so named because the palace was built on the site of an ancient tile works.

**Tu-i-nal** /'töä,nəl; -'nal/ ▶ *n.* trademark Medicine a sedative and hypnotic drug consisting of a combination of the barbiturates amobarbital and secobarbital.

**tu-i-tion** /t(y)ö'ishən/ ▶ *n.* a sum of money charged for teaching or instruction by a school, college, or university: I'm not paying next year's tuition. 2 teaching or instruction, esp. of individual pupils or small groups: private tuition in French. ▶ late Middle English (in the sense 'custody, care'): via Old French from Latin *tutatio(n)-*, from *tueri* 'to watch, guard.' Current senses date from the late 16th cent. — *tu-i-tional* /-shənəl/ *adj.*

**tuk-tuk** /'töök 'töök/ ▶ *n.* (in Thailand) a three-wheeled motorized vehicle used as a taxi. ▶ imitative.

**Tu-la** /'tölä/ ▶ *n.* an industrial city in western Russia, south of Moscow; pop. 543,000. 2 the ancient capital city of the Toltecs, usually identified with a site near the town of Tula in Hidalgo State, in central Mexico.

**Tu-lar-e** /tö'le(ə)rə; -le(ə)r/ a commercial city in south central California, in the San Joaquin Valley; pop. 33,249.

**tu-la-re-mi-a** /t(y)ölä'rēmēə/ (Brit. *tu-lar-ae-mi-a*) ▶ *n.* a severe infectious bacterial disease of animals transmissible to humans, characterized by ulcers at the site of infection, fever, and loss of weight. Compare with RABBIT FEVER. • This disease is caused by the bacterium *Francisella tularensis*; Gram-negative rods or cocci. ▶ 1920s: modern Latin, from *Tulare*, the county in California where it was first observed. — *tu-lar-e-mic* /rēmik/ *adj.*

**tu-le** /'töle/ ▶ *n.* a large bulrush that is abundant in marshy areas of California. • Genus *Scirpus*, family Cyperaceae: two species, *S. acutus* and *S. validus*.

▶ mid 19th cent.: via Spanish from Nahuatl *tullin*.

**Tu-le Lake** a lake in northern California, on the border of the Modoc and Shasta counties.

**tu-lip** /'tölip/ ▶ *n.* a flower of the family *Tulipaceae*, typically with a single flower.

▶ *adj.* of or relating to tulips: tulip-colored.

▶ *n.* a flower of the family *Tulipaceae*, typically with a single flower.

EXHIBIT

E

pg. 45

**RELATED PROCEEDINGS APPENDIX**

None.